



giving  
nature  
a home



# Connecting with **nature**

finding out how  
connected to nature  
the UK's children are



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# Welcome

I am very pleased to present the findings of an important and innovative three-year RSPB research project. For the first time, we have created a baseline that we and others can use to measure just how connected to nature the UK's children really are.

The RSPB believes that connecting with nature should be a part of every child's life – to develop deeply-held feelings and attitudes towards wildlife and the world we all live in. The kind support of the Calouste Gulbenkian Foundation and the University of Essex has made this research possible.

This report:

- establishes a clear definition of connection to nature and a method for measuring it
- highlights a wide range of benefits for children, society and the environment
- for the first time, reveals how connected to nature children are across the UK.

Nature is in trouble, and children's connection to nature is closely linked to this. The recent *State of Nature* report shows that nature in the UK is being lost – 60% of species assessed have declined over recent decades. Not only can children take action to help turn this around, but they will also benefit from having more contact with nature.

The national results presented over the following pages make fascinating reading. Importantly, they show that currently only 21% of 8–12 year olds in the UK have a level of connection to nature that the RSPB considers to be a realistic and achievable target for all children.

The results also reveal differences between children's levels of connection that may not be expected. There is much more we want to explore here, including further analysis of the broader socioeconomic data gathered. The outcomes of this work should be of interest to everyone involved with or concerned about children and nature.

I was lucky as a child to have access to the woods and marshes of Shorne and Cobham in Kent. It was there that I discovered the amazing diversity of life on the edge of my town. I couldn't have known then that those experiences would stay with me, and spark a commitment to saving nature that has been with me ever since.

We believe that everyone has a role to play in putting nature back into childhood – including governments, local authorities, schools, families and, of course, organisations like ourselves and others.

This report concludes with information about how everyone can measure children's connection to nature, and what else the RSPB is doing to help tackle the challenge.

**Dr Mike Clarke**  
RSPB Chief Executive

# What does “connection to nature” mean?

In its broadest sense, “connection to nature” describes the mix of feelings and attitudes that people have towards nature. You might also call it “loving nature”, having a “sense of awe and wonder” or simply “caring for the environment”.

The RSPB worked with the University of Essex to develop a clear description of children’s connection to nature in our modern world. We could then begin to measure reliably the level of connection and how this changes.

As a result of this work, we have chosen four descriptions of children’s feelings towards nature, based on previous research. We have used these as our over-arching framework for defining connection to nature. They are: enjoyment of nature; having empathy for creatures; having a sense of oneness with nature; and having a sense of responsibility for the environment.

In this way, connection to nature is about long-held attitudes and beliefs, rather than the kind of short-term, warm feeling we experience after a day outdoors.

The University of Essex report of their study is available from [rspb.org.uk/connectionmeasure](https://rspb.org.uk/connectionmeasure)

## What is connection to nature?

Enjoyment of nature

Empathy for creatures



Sense of oneness

Sense of responsibility

Adapted from: Chen-Hsuan Cheng, J. and Monroe, M. C. (2012) Connection to Nature: children’s affective attitude toward nature. *Environment and Behavior* 44(1): 31–49



# Why does connection matter so much to children?

When young people are connected to nature, it has positive impacts on their education, physical health, emotional wellbeing, and personal and social skills, and helps them to become responsible citizens.

In 2010, the RSPB's report *Every Child Outdoors* brought together external research into the benefits of contact with nature. Some of the key findings it included were:

- **Education** – “First-hand experiences...can help to make subjects more vivid and interesting for pupils and enhance their understanding...[and] could make an important contribution to pupils' future economic wellbeing and preparing them for the next stage of their lives.”
- **Health and wellbeing** – “Children increase their physical activity levels when outdoors and are attracted to nature...All children with ADHD [Attention Deficit Hyperactivity Disorder] may benefit from more time in contact with nature...”
- **Personal and social skills** – “Experience of the outdoors and wild adventure space has the potential to confer a wide range of benefits on young people... Development of a positive self-image, confidence in one's abilities and experience of dealing with uncertainty can be important in helping young people face the wider world and develop enhanced social skills.”

The *Every Child Outdoors* report is available from [rspb.org.uk/childrenneednature](http://rspb.org.uk/childrenneednature)

## The costs of disconnection

If children do not have a connection to nature, they may be missing the many positive impacts it can make on their lives. The effects of disconnection may include lower achievement at school, poorer mental and physical health, or under-developed social skills.

To describe these negative impacts, American author Richard Louv coined the term nature-deficit disorder in his influential book *Last Child in the Woods* published in 2005. He defines nature-deficit disorder as, “the human costs of alienation from nature, among them: diminished use of the senses, attention difficulties, and higher rates of emotional and physical illnesses.”



# Saving nature – now and in the future

If children are connected with nature, they are more likely to be interested in their environment and in taking part in nature-based activities. In other words, by connecting children with nature, they will enjoy it and want to save it – now and in the future.

## The state of nature

Nature is in trouble and the threats it faces will not go away. For the first time ever, a coalition of the UK's wildlife organisations have joined forces to undertake a health check of nature in the UK and its Overseas Territories. The data gathered by an army of thousands of dedicated and passionate volunteers have been brought together and have been published in a report entitled *State of Nature*.

Nature is being lost – 60% of the species assessed have declined over recent decades and 30% have declined very strongly. But we can turn things around – through conservation initiatives, community projects, public campaigns and individuals doing their bit, we can bring nature back.

Visit: [rspb.org.uk/stateofnature](https://rspb.org.uk/stateofnature)

Without the opportunity and encouragement to get outdoors and connect with nature, today's children are missing out on so many benefits that previous generations have enjoyed. As well as harming children, this is putting the future of our nature and environment at risk.

And we are missing out on a workforce for saving nature – children and young people themselves can be active in nature conservation. Action by children and young people also leads to their becoming more engaged citizens.

“...connection to nature is a strong predictor of children's interests in environmentally friendly practices...”



# How do children connect?

Previous research has suggested four factors that contribute to connecting children with nature. These are summarised below, accompanied by findings from that research and personal quotes from children and adults. Not surprisingly, the interactions between these four factors, and the processes by which they influence connection, are complex and vary between individuals.

## Attitudes toward nature at home

### The science:

...family values toward nature are a strong factor that can influence children's connection to nature.

### Hattie, mother

"We live in a scruffy urban area with very little green space, but pledged to incorporate nature into our two year old's life as much as possible."

## Experiences of nature

### The science:

...spending more time in nature helps children develop a stronger connection to nature.

### Charlotte, aged 8

"I love to go on lovely beautiful summer walks to nature trails and woods."



## Nature near the home

### The science:

[...there is] a significant correlation between children's connection to nature and nature near their homes.

### Jess, aged 10

"I love nature because it fills me with joy. You find nature everywhere, even in your back garden."

## Knowledge about the environment

### The science:

...environmental education opportunities that increase children's knowledge and skills for solving environmental problems may help promote pro-environmental actions.

### Jackson, aged 8

"Nature is like an outside classroom, there is so much to explore and lots to find out."

# The state of UK children's connection to nature in 2013

By testing and using the approach to connection to nature described on the previous pages, we have been able, for the first time, to measure children's connection to nature across the UK.

To do this, a representative sample of 1,200 children aged 8–12 years was asked the extent to which they agreed with 16 statements found by the academic research to indicate their connection to nature. Responses were scored from -2 (strongly disagree) to +2 (strongly agree).

The resulting national baseline data are presented on these two pages. These show the average score given for all the statements in total (from -2 to +2), and the percentage of children whose score was 1.5 or greater.

The RSPB believes that a score of 1.5 is a realistic and achievable target for every child. This is based on our initial assessment of the average score for school children visiting our nature reserves and amongst our junior membership. We will undertake further research in the near future to refine this target.

The differences between children's connection to nature shown in these figures are interesting and not entirely as may have been predicted – for instance, the higher score for urban children compared to rural children.

The RSPB is continuing to analyse the data to investigate how and why connection scores vary between countries, gender, and urban and rural homes. We are also looking at additional information gathered, such as household composition, social grade and ethnicity.

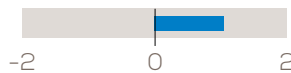
**These figures show the average score of connection to nature (from -2 to +2) for children aged 8–12 years, and the percentage of children whose score was 1.5 or greater.**

**The RSPB believes that a score of 1.5 is a realistic and achievable target for every child.**

## UK TOTAL

Average score

1.05



Percentage scoring 1.5 or greater

21%



“There are statistically significant differences between children's connection to nature at a national level across the UK, as well as between boys and girls, and British urban and rural homes.”

TNS questioned 1,088 members of the British public, aged 8–12 years, between 30 November 2012 and 26 March 2013 as part of their weekly face-to-face omnibus survey. Ipsos MORI questioned 112 members of the Northern Ireland public, aged 8–12 years, between 27 October and 4 November 2012. The data were combined and weighted by TNS to ensure that the profile used was representative of the overall population. The quoted differences in connection to nature are statistically significant at the 99% confidence level.





## SCOTLAND

Average score

1.08

Scoring 1.5  
or greater

27%

## NORTHERN IRELAND

Average score

1.12

Scoring 1.5  
or greater

25%

## ENGLAND

Average score

1.05

Scoring 1.5  
or greater

21%

## WALES

Average score

0.97

Scoring 1.5  
or greater

13%

## LONDON

Average score

1.15

Scoring 1.5  
or greater

24%

## UK GIRLS

Average score

1.15

Scoring 1.5  
or greater

27%

## UK BOYS

Average score

0.96

Scoring 1.5  
or greater

16%

## GB URBAN

Average score

1.06

Scoring 1.5  
or greater

21%

## GB RURAL

Average score

1.00

Scoring 1.5  
or greater

20%



# Our challenge now:

## to connect all children with nature

This is the first time the level of children's connection to nature has been measured at a national scale in the UK. It is just the beginning of more research and action on this important issue.

Our research will add to the growing evidence base about children and nature. This includes a study by Natural England which suggested that factors contributing to connection are in decline. It reported that only 10% of children in the UK played regularly in natural places in 2009, compared to 40% in the 1970s.

The RSPB will regularly measure and publish the state of children's connection to nature – to monitor how it changes and assess the impact of steps taken to connect all children to nature.

As well as releasing the findings of our detailed analysis of the current national data, we will continue to research what factors contribute most to connecting children with nature.

In addition, we will investigate how different levels of connection can have different impacts on individuals, and how children's connection to nature leads to pro-environmental behaviours.

"The RSPB is committed to connecting young people with nature and empowering them to protect the natural world, now and in the future."



# What next?

## Everyone working together

The following pages make recommendations and have information to help everyone tackle the challenge of increasing children's connection to nature. This includes governments, local authorities, schools, families and, of course, organisations like the RSPB.

### Our recommendations to governments

We want national governments, devolved administrations and local authorities to:

- Adopt the measure of children's connection to nature. Take action to increase connection through policy and practice decisions, and regularly monitor for changes.
- When working to raise connection, include all possible types of experience in nature, within the formal education system and informal activities.
- Recognise that having nature near the home is an important influence on children's opportunities to connect with nature – for example, when setting policies on local green space and transport.
- Tackle obstacles to connected young people taking action to save nature and being active citizens in society.
- Enrich positive attitudes towards nature at home by ensuring families – and all adults – are able to experience, learn about, connect with and take action for nature.
- Acknowledge that facts, knowledge and understanding about nature, ecology and human impacts on the environment are crucial factors influencing connection, however and wherever they are learnt.



# Get measuring!

Other organisations, schools and families are welcome to use the measure to see how connected to nature their children are, and how this changes over time.

The questionnaire of 16 statements used in the research is on the opposite page and available to download from [rspb.org.uk/connectionmeasure](https://rspb.org.uk/connectionmeasure)

The research report from the University of Essex on that webpage also has more information about the statements and important guidance about how to use the questionnaire.

Please share your findings and experiences with us, either by e-mail: [connection.measure@rspb.org.uk](mailto:connection.measure@rspb.org.uk) or on Twitter using the tag [#getoutdoors](https://twitter.com/getoutdoors)

## How to calculate the score of connection

Follow the example table below to multiply the number of ticks in each column of the questionnaire by the appropriate weighting, add these totals up and then divide that grand total by 16 to calculate the overall average score of connection.

| Option   | Weighting | Number of ticks | Total       |
|--|-----------|-----------------|-------------|
| Strongly agree                                       | 2         | 7               | 14          |
| Agree  | 1         | 5               | 5           |
| Neither agree nor disagree                           | 0         | 3               | 0           |
| Disagree   | -1        | 1               | -1          |
| Strongly disagree                                    | -2        | 0               | 0           |
| <b>Grand total</b>                                   |           |                 | <b>18</b>   |
| <b>Average score<br/>(grand total divided by 16)</b> |           |                 | <b>1.13</b> |

Reminder: the RSPB believes that a score of 1.5 is a realistic and achievable target for every child.



## Connection to nature questionnaire for 8–12 year olds

Please tell us how much you agree or disagree with each of the following statements, by putting a tick in the relevant box.

| Statements   | Strongly agree           | Agree                    | Neither agree nor disagree | Disagree                 | Strongly disagree        |
|--|--------------------------|--------------------------|----------------------------|--------------------------|--------------------------|
| I like to hear different sounds in nature                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| I like to see wild flowers in nature                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| When I feel sad, I like to go outside and enjoy nature         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| Being in the natural environment makes me feel peaceful        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| I like to garden   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| Collecting rocks and shells is fun                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel sad when wild animals are hurt                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| I like to see wild animals living in a clean environment       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| I enjoy touching animals and plants                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| Taking care of animals is important to me                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| Humans are part of the natural world                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| People cannot live without plants and animals                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| Being outdoors makes me happy                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| My actions will make the natural world different               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| Picking up trash on the ground can help the environment        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| People do not have the right to change the natural environment | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |

Thank you!

# What else are we doing?

The RSPB wants to help increase children's connection to nature, by providing adults and children with access to the information and support they might need, and by providing opportunities to take action to save nature. Here are just a few ways we are doing this:

Our *Giving Nature a Home* campaign is inspiring individuals and families to create homes for nature in their gardens, making people aware that nature on their doorstep is in trouble and showing them what they can do to help.

Visit [rspb.org.uk/homes](https://www.rspb.org.uk/homes)

To find your nearest RSPB reserve for a family day out, visit [rspb.org.uk/reserves](https://www.rspb.org.uk/reserves)

In our junior membership, over 200,000 RSPB Wildlife Explorers – including over 40,000 teenage members of RSPB Phoenix – discover and enjoy nature with the RSPB. Find out more about what we offer, how to join and our other activities and awards for young people at [rspb.org.uk/youth](https://www.rspb.org.uk/youth)

For nearly 50 years, the RSPB has been welcoming school children to our reserves to learn outside the classroom. In addition, every year up to 100,000 pupils and teachers across the UK take part in the Big and Little Schools' Birdwatches. There is lots more information for schools, teachers and early-years settings at [rspb.org.uk/schools](https://www.rspb.org.uk/schools)

## Joining forces for children and nature

The RSPB is a founding partner of The Wild Network, which exists to champion and support connection with nature and wildness in children and young people. This is an exciting movement whose goal is to connect every child in the UK with nature.

It will do this by building a movement of children, parents, teachers, grassroots organisations, charities, government and businesses that work together to break down the barriers stopping kids getting outside.

The Wild Network's first initiative is a film-led campaign – *Project Wild Thing: reconnecting kids and nature*. For more information, visit [thewildnetwork.com](https://www.thewildnetwork.com)



# Working together for children and nature

The RSPB thanks the Calouste Gulbenkian Foundation and the University of Essex for their funding and contributions to this important research into measuring children's connection to nature.

## Calouste Gulbenkian Foundation

The Calouste Gulbenkian Foundation is supporting the RSPB's research to measure nature-deficit disorder in children under its Environment theme, which aims to help in the development of a society which benefits from a more sustainable relationship with the natural world and understands the value of its resources. As an international charitable foundation with cultural, educational, social and scientific interests, based in Lisbon with branches in London and Paris, we are in a privileged position of being able to address national and transnational issues and to act as an "exchange" for ideas. The purpose of the UK Branch, based in London, is to help enrich and connect the experiences of people in the UK and Ireland and secure lasting, beneficial change.

[gulbenkian.org.uk](http://gulbenkian.org.uk)



CALOUSTE  
GULBENKIAN  
FOUNDATION

## Green Exercise Research Team at the University of Essex

Sitting within the School of Biological Sciences at the University of Essex, the Green Exercise Research Team has been researching the concept of "Green Exercise" for over 10 years. World leaders in the field, the team consists of experts in the areas of exercise physiology, psychology, public health, environmental sustainability, community engagement and behaviour change. The team works closely with many external organisations to evaluate nature-based projects on a national and community level. The Green Exercise Research Team is also a leading authority on the use of Participatory Appraisal and Action Research to assess the needs and opinions of communities. With over 25 years' experience of participatory assessment, it has worked with a wide variety of organisations and target groups both within the UK and internationally.

[greenexercise.org](http://greenexercise.org)



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[rspb.org.uk/connectionmeasure](http://rspb.org.uk/connectionmeasure)

The RSPB is a registered charity in England & Wales 207076, in Scotland SC037654.

IMAGES: Leaping boy, boy peeping through leaves and boy with sweet chestnut by David Tipling, Dr Mike Clarke, "frogs welcome", boy and girl playing and family exploring reserve by Eleanor Bentall, wild flower meadow by David J Slater, boy and hedgehog by Edwin Kats, girl in trendy boots by Peter Cairns (all rspb-images.com); girl lying in long grass by Yuri Arcurs (Alamy.com); meadow pond and autumn leaves (both by istockphoto.com) 273-1658-11-12

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